1: Pelzer S-5 (1940-1941) 1945 Al.1 Southeast Asia AE7
Philippines SoA1

SEA 312 243

mand respect and admiration for the ingenuity displayed.[20] "The serious imperfections which characterize native irrigation works and make rice culture uncertain, particularly in the plains, can assuredly not be charged to the account of these who constructed them." [21] The weirs, by means of which the peasants raise the water of small rivers, are especially weak. The construction material consists of bamboo, trunks of coconut and other trees, and boulders. At times great bamboo baskets are filled with heavy stones and placed in the river, or large stones are laid loosely across the channel. Where the rivers are wide the people drive two rows of tree trunks into the river bed and fill the space between the rows with whatever debris they have at hand. These weirs frequently break because of river floods as they have no provision for allowing passage of flood waters; yet repair is often impossible for the duration of the rainy season, so that the crop is ruined. Another constructional disadvantage is the open intakes. During floods large quantities of water flow through these and cause an excessive soaking of the fields and damage to the canals. Wherever a canal has to cross a depression, a road, or another watercourse, bamboo or hollowed tree trunks are used to carry the water overhead. This often leads to large losses of water, especially during floods. Poor drainage is another weakness of peasant irrigation systems.

SEA [177]

Scientifically trained engineers have come to the aid of peasant communities in Southeastern Asia and have designed irrigation systems based on technological principles and free from the weaknesses of peasant irrigation works. One of these technical irrigation systems may take care of tens of thousands of hectares of riceland belonging to hundreds of villages. In many instances the engineers have improved existing peasant irrigation works; more often they have made irrigation possible where peasant communities did not have the financial and technical resources to overcome natural obstacles. Technical irrigation works are usually government-financed.

SEA [652] P

In the Philippines most of the wet-rice fields are dependent exclusively upon the rain that falls directly on them. One centimeter of rain a day is said to be necessary for a healthy rice growth. But there is always the possibility that, particularly in the months of May and June, there may be so little rain that the peasants cannot prepare their fields. A shortage of rain in October is also dangerous as it may seriously damage, or even destroy, the crop, even though the precipitation during the rainy season may have been enough for the production of a satisfactory crop. To guard against an insufficiency of water for the wet-rice crop, therefore, the fields should be supplied by irrigation systems. The Philippines, however, do

312 243

P [616]

[20] The *subaks* of Bali are agricultural cooperative societies that have been formed to construct, maintain, and administer irrigation systems. The achievements of the Balinese subaks are very remarkable in a number of ways. Thus, the men of certain villages are especially skillful builders of irrigation works and are able to construct long canals and even tunnels of considerable length. These men are hired by the subaks and help them to solve their irrigation problems.

[21] Van der Meulen: "Irrigation in the Netherlands Indies," 1940, p. 146.

7: Furnivall G-4, 5 (no date) 1948 AL1 Southeast Asia AL1

on the contrary, welfare is a condition of progress. If, therefore, colonial powers would enhance welfare in their dependencies, they must aim directly at promoting welfare instead of expecting it as a sequel of economic development.

Here we encounter a preliminary difficulty in defining the concept of welfare. If we define welfare as consisting in harmony between the individual and his environment, colonial policy must aim at reconciling them. They can be reconciled in two ways: by submission to the environment, or by mastering it. The former might be consistent with material welfare if men were no more than cattle, but it fails because men are not merely cattle. It is true that men must accept the facts of their environment if they are to master it, and that tropical peoples, when brought into contact with the modern world, must come to terms with western civilization in order to achieve harmony with their environment, but they alone can promote their own welfare, and whereas modern colonial policy regards welfare as a condition of autonomy, we are led to the conclusion that, on the contrary, autonomy is a condition of welfare.

Colonial autonomy is a heritage from the Liberal tradition. But in the past it has been attempted through mechanical reconstruction by the introduction of a native personnel into the administration, and the imitation of western political institutions in local and central government. Such attempts to adapt tropical society to western forms of self-government are based on the fallacy that form gives birth to function, and they serve merely to facilitate the working of economic forces, destructive both of welfare and autonomy. If we would promote autonomy, and thereby welfare, we must aim at adapting western institutions to tropical society, on the principle that function will devise appropriate forms of government.

These in brief are the considerations that will engage our attention in the present chapter. They lead on to the conclusion that what is needed is not mechanical reconstruction, but a creative impulse, strong enough to solve the problem of restoring unity to a disintegrated social order, and strong enough also to surmount the obstacles arising from considerations of profit and prestige.

2. Welfare and Revenue

Under western rule, tropical dependencies produce more. Because people must grow more in order to eat more, it is natural to assume that they eat more because they grow more. But this assumption

7: Furnivall G-4, 5 (no date) 1948 AL1 Southeast Asia AL1

is invalid. Public works and economic services increase the productivity of western enterprise. They may also, within limits, increase native production, but without any corresponding enhancement of welfare. Such devices indeed, by allowing freer play to anti-social economic forces, tend to prejudice rather than promote native welfare, and create a need for social services to mitigate their deleterious effects. Yet the services intended to furnish the necessary protection function mainly to make production more efficient, and the services intended to promote welfare directly by improving health and education have a similar result; though designed as instruments of human welfare they are perverted into instruments of economic progress.

When the machinery for enhancing welfare proves ineffective, a remedy is sought in more and more elaborate and costly machinery. For the promotion of welfare, it is argued, economic and social services are needed; these cost money and require larger revenue; larger revenue can come only through economic development, and economic development depends on western enterprise and capital. Therefore western enterprise and capital are needed to provide the revenue for economic and social services that will enhance welfare. This is the proposition that we must now examine.

It is true that western enterprise and capital are effective agents of development; but so also is native enterprise. Both under direct rule and, though less conspicuously, under indirect rule, the maintenance of order and the opening up of new markets have sufficed to call forth native enterprise without the importation of western capital. It is true also that economic development provides more revenue. But at the same time it raises the cost of administration. This rises even with development by native enterprise, because expenditure must be incurred on law and order and on communications. But it rises far more rapidly and further with development by western enterprise. 'The most superficial observer must be struck by the difference which the existence of a resident European community makes in the standards of government expenditure.'[1] The European community demands better provision for its own amenities in respect of health, education and so on, and also demands better provision for natives so that they may furnish more efficient labour or more abundant produce. Some of the services incidental on development become indispensable. But usually the revenue from tropical dependencies barely suffices for urgent expenditure on the maintenance of order and the improvement

[1] *African Survey*, p. 1463.

7: Furnivall G-4, 5 (no date) 1948 AL1 Southeast Asia AL1

of communications. Not infrequently debts incurred to the Home Government have had to be remitted, and in most dependencies the financial position is one of constant stringency, while the inadequacy of the surplus available for economic and social services forms a recurrent burden of complaint both among officials and the representatives of western enterprise.

The argument that western enterprise is needed to provide the funds for social services assumes that the revenue derived from it more than covers the extra cost of administration consequent on economic development. But 'whether the local administrations have yet taken a sufficient share of the profits of foreign enterprise is a matter of some debate.... It must be admitted that a number of administrations have shown reluctance to utilise fully their powers to impose taxation on the profits of companies or firms working in their territory, or have done so only in response to pressure from the Home Government'.[1] In practice, there is a deficit, which is met partly by imposing new obligations in services or taxation on the natives, and partly from private contributions, native and foreign.

It is indeed generally recognized that, in the course of economic development, excessive burdens have often been imposed upon the natives, either in taxation or compulsory labour, to meet the charges of general administration and the additional expenditure consequent on economic development, and even for the direct benefit of western enterprise.[2] Especially in the improvement of communications by road and rail, there have been serious abuses. In Africa, moreover, railway construction has mostly been unprofitable, constituting a charge on general revenue and cramping economic and social services so narrowly as to keep them below the standard required even for economic progress.

Another very considerable contribution to the cost of essential services comes from private sources. Among these one may reckon contributions from western enterprise otherwise than through taxation. As already mentioned, the great experimental stations in Netherlands India, which have done so much for the science of tropical agriculture, were until recently maintained by the planters' associations without Government assistance; they were intended to make production more profitable for those who supplied the funds, but their benefit radiated throughout the tropics and beyond, sometimes to the

[1] *Britain and Her Dependencies*, p. 22.
[2] *African Survey*, pp. 613, 635, 1549, 1565.

7: Furnivall G-4, 5 (no date) 1948 AL1 Southeast Asia AL1

657 detriment of local interests as in teaching India and Japan how to grow
652 sugar. In all parts of the tropics, in Asia as well as in Africa, the more enlightened employers provide good quarters, medical attention and schools, and make their employees comply with modern sanitary requirements; such amenities make production more efficient and profitable. Employers will provide such services as they deem profitable, and on humanitarian grounds may carry this principle to the farthest limit or possibly beyond, but they are not disinclined to be relieved of the expense by the Government or private charity.

741 Private charity, indeed, together with the voluntary contributions and exertions of the inhabitants, seems to bear most of the cost of social service in the tropics. The assistance rendered by missionary organizations to educational and medical services is a matter of common knowledge. We have already noticed their large part in the provision of hospitals and schools. From the accounts of one mission in Uganda it appears that the public revenue furnished only £22,420—less than one-third of its charges—while the natives contributed £13,333 in gifts and £17,667 in school fees, and a grant from Europe provided £17,987.[1] This suggests that educational progress should be ascribed to Christianity rather than to western capital. If the encouragement of western enterprise is necessary to provide funds for economic and social services, one would expect the greatest progress in education where western enterprise penetrates most deeply. This is notoriously contradicted by the facts. As we have seen, during the nineteenth century education made far more rapid progress in Burma with development by native enterprise than in Java with development by western enterprise. Experience in Africa corroborates this view. The total expenditure of Government may be taken as an index to economic progress, and the expenditure on the education of non-natives is an index to the degree of western penetration. Such figures as are available under these heads suggest that the percentage of expenditure on native education is lowest where western enterprise is most conspicuous.[2]

Other facts point in the same direction. The first comprehensive enquiry into African education was financed by the Phelps-Stokes Fund in America, and American funds contributed largely to the foundation of the Jeanes schools that were established as one result of the enquiry. The monumental *African Survey*, conducted by Lord

[1] *African Survey*, p. 1306.
[2] *Ib.* p. 1309, and Table XI.